



TECHNICAL UNIVERSITY OF MOMBASA

Faculty of Applied & Health Sciences

DEPARTMENT OF ENVIRONMENT & HEALTH SCIENCES

DIPLOMA IN LABORATORY TECHNOLOGY AND MANAGEMENT
(DLTM)

AES 2130 ENVIRONMENTAL STUDIES

END OF SEMESTER EXAMINATIONS

SERIES: AUGUST, 2014

TIME: 2 HOURS

INSTRUCTIONS TO CANDIDATES:

-Question question **ONE** and answer any other **TWO** questions
This paper consists of **3 PRINTED** pages

QUESTION ONE (COMPULSORY)

- (a) (i) Define the term "Pollutants" (1 mark)

- (ii) What do you understand by the term:-
- (I) Persistent Pollutants and
 - (II) Non Persistent Pollutants **(2 marks)**

(iii) Briefly classify the various pollutants you know. **(5 marks)**

(b) List the compounds of hydrocarbon. **(3 marks)**

(c) (i) Name the sources of volatile organic compounds. **(3 marks)**

(ii) Air is polluted by various primary and secondary pollutants. List and briefly explain any **FIVE** of these pollutants. **(5 marks)**

(d) (i) Briefly explain the **THREE** broad classifications of Noise control techniques. **(3 marks)**

(ii) Name the **THREE** distinct aspects of Noise and sound. **(3 marks)**

(iii) One of the method of noise control is by installation of panels or enclosure. Briefly discuss this method **(4 marks)**

(iv) Substitution is one of the methods applicable in prevention and control of air pollution. Briefly outline it's operationalization. **(2 marks)**

QUESTION TWO

(a) Define the term 'Toxification' **(1 mark)**

(b) Agriculture is one of the major economic activities in Kenya. Outline its role in soil pollution. **(4 marks)**

(c) Mass flow is the passive transport of the dissolved solutions within moving soil water. In detailed explanation, discuss this process. **(10 marks)**

QUESTION THREE

Discuss the following terms in relation with Environmental pollution.

- (i) Waste management (3 marks)
- (ii) Waste hierarchy (4 marks)
- (iii) Extended Produces Responsibility (4 marks)
- (iv) Avoidance (2 marks)
- (v) Reduction method (2 marks)

QUESTION FOUR

- (i) Define the term “transtoxification” (1 mark)
- (ii) What is “Bio magnification” (2 marks)
- (iii) Briefly discuss the **THREE** common ways of determining the effects of various pollution concentration dosages in human being. (3 marks)
- (iv) Outline the **THREE** biological effects of Radiation. (3 marks)
- (v) Briefly discuss the effects of Radiation Pollution in human health. (6 marks)

QUESTION FIVE

- (a) (i) List the **THREE** stages liquid waste (waste water) undergoes during its treatment (3 marks)
- (ii) In the **THREE** stages mentioned above, explain chloronologically the processes arrived out in each. (12 marks)